

## Embarking *The Six Thinking Hats* in EFL Students' Dissertation Writing at Saida University

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### Abstract

The present study aims to provide some helpful techniques that guide EFL students in writing essays based on de Bono's *The Six Thinking Hats*, hoping that these techniques can help EFL Master Students in writing their dissertations. The researchers selected first-year Master's students at Dr. Moulay Tahar University, Saida. The sample of the study consists of 39 students forming the experimental group. Before starting the experiment, the group had a pretest. After that, they were taught how to use the Six Thinking Hats Approach in writing the abstract and general introduction. The findings of the study revealed that there is a significant difference between the results of the pretest and posttest. The result also indicated that the use of the Six Thinking Hats technique provides mechanisms that can enhance the EFL student's writing skill mainly, in writing dissertations. It is recommended that more importance should be given to practice in developing students' writing skills. This may enhance the teaching process by implementing techniques that include cognitive abilities in writing tasks that may also improve their critical thinking.

**Keywords:** Abstract and General Introduction Writing, Cognitive Abilities, Dissertation Writing, EFL Master Students, Six Thinking Hats

### 1. Introduction

Thinking is a skill that distinguishes humans from other creatures. Good thinkers are never satisfied with their thinking skills. According to the founding father of the approach De Bono (1994), humans, who are satisfied with their thinking skills, are poor thinkers. Creativity is an important ingredient in the thinking process. Besides, the advent in the field of technology and the necessity to introduce it in the teaching and learning process call for creativity as an essential ingredient. Creativity is needed in teaching and learning in general and the EFL context in particular. This means that creativity is needed in developing writing and communicative skills (Phuntsho & Wangdt, 2020).

Developing students' writing skills have received scholarly attention many years ago and is still gaining the same position due to the importance of writing in learning any language. Previous studies applied many techniques and approaches to develop student's writing skills and some of these studies linked thinking skills and creativity to the process. Hence, giving more importance to improving learners' thinking skills has gained a special position. Many researchers focused on the importance of developing a thoughtful classroom before trying to improve the learners' thinking skills. In his part, Beyer (1997) claimed that we need to create a thoughtful classroom that can provide "engagement, support, and motivation for the students (...) a thinking-friendly environment should be created in the organization to support, motivate and encourage employees to think and reason freely" (Khataybeh & Salem, 2015, p. 25).

De Bono's approach which is known as the *Six Thinking Hats* (STH) aims to develop thinking between groups. According to De Bono (1994), the six thinking hats are set metaphorically and can be removed. People or students can engage to think through the use of colors. For this reason, researchers think that the approach can help to develop writing

skills.

When it comes to dissertation writing, students find difficulties in organizing its basic features, mainly the abstract, the general introduction, and the general conclusion. Indeed, this field receives the least attention in academic writing, although there are many techniques and approaches that students can find helpful. Engaging students to think critically or use their thinking skills in dissertation writing still needs more research. Hence, the ultimate aim of the current research paper is to shed light on the possibility of using De Bono's approach to teach students research methodology techniques. The main focus is on how to use the approach to improve their thinking skills so that they can recognize the basic features of the abstract and general introduction since they are the most important parts of dissertation writing.

Research on the use of STH to develop students' creativity and thinking skills proves its effectiveness in promoting learner's writing performance. Therefore, the researcher was motivated to employ the approach in academic writing in general and research methodology in particular to enhance students' dissertation writing. To solve the research problem and reach the aim, the following research questions are set as follows:

- Did STH improve students' dissertation writing?
- How can students use STH to develop their thinking and writing skills?

Throughout the current paper, we will introduce the reader to "The Six Thinking Hats" as a concept as it is introduced by De Bono. The researchers also present a succinct account of the methods section by describing the participants, research tools, and procedures. The findings section presents in detail how the researchers employed the approach in research methodology, mainly in writing the informative abstract and the general introduction. The paper ends with the point that critical thinking should be integrated with academic writing, mainly in thesis writing.

## 2. Literature Review

### 2.1. The Six Thinking Hats: An Overview

Researchers like Sarsani (2005) defined STH six as modes of thinking that direct the learner to think (AlBakri, 2011). Similarly, Vacca (2006) observed that STH is a "means for groups to think together more effectively and a means to plan thinking process in a detailed and cohesive way" (as cited in AlBakri, 2011, p. 489). Hence, STH is an approach developed by Edward de Bono to help students to develop their thinking skills in general and critical thinking in particulars. It gives value to problem-solving as a cue in developing critical thinking. Consequently, the approach has received considerable interest among researchers to use it in second and foreign language learning and teaching pedagogy in particular. In their part, Ercan and Bilen (2014) highlighted the importance of STH as an approach in comparison to other thinking approaches. Sharing the same view, Payette and Barnes (2017) averred that the approach is, mainly useful in class since it raises students' motivation and competition. Ercan and Bilen (2014) added that the approach can also increase classroom activities. In a similar vein, Zwaan (2016) stressed the effectiveness of integrating STH since it helps students to extract knowledge in their classroom interaction (AlBakri, 2011). Similarly, Dhanapal, and Wern Ling (2013) observed that "this process allows students to become stimulated to think and be in control of their learning with the specified modes of thoughts through language and take control of their role as an active listener and speaker" (as cited in Hightower, 2019, p. 9).

Before digging deeper into the usefulness of STH in the teaching and learning process in general and EFL context in particular, it is essential to introduce the reader to STH as a concept as follows:

- 1) White hat thinking concerns the available as well as required information.
- 2) Black hat thinking considers the challenges that a topic raises.
- 3) Yellow hat thinking focuses on advantages and principles.
- 4) Red hat thinking examines the emotional effect of a topic.
- 5) Green hat thinking demands thinking ‘outside the box’ concerning a topic.
- 6) Blue hat thinking concerns self-reflexivity.

(Al-Khataybeh, 2020, p. 160)

As the previous quote shows, De Bono (1994) selected six imaginary colored hats to represent six thinking modes. According to Al-Khataybeh (2020), De Bono (1992) aimed to develop the learner’s thinking skills to solve a problem or explore a research topic from six directions through wearing the six colored hats.

De Bono (1994) stressed the importance of the approach in developing students’ intellectual level through teaching them how to think critically and develop their creativity. Hence, creativity occupies an integral position in using the approach. In his part, Mayer (2007) believed that promoting the appropriate learning atmosphere or classroom environment is important to successfully implement the approach and enhance students’ writing and creativity.

A Myriad of studies was conducted in different fields and favored the use of STH in different disciplines such as enhancing innovation between social workers. Similarly, researchers also tried to integrate the approach in education to enhance students’ thinking skills improvement. A good example of these studies is that of Farajallah and Saidam (2018) through which they revealed its effectiveness in boosting learning and developing creative thinking, while Al-Bakri (2011) employed the STH technique in enhancing students’ performance in writing composition. In his part, Tooley (2009) proved its effectiveness in developing writing skills. However, these studies remained limited when it comes to teaching English as a foreign language and the skills being ameliorated. Most of these studies explored the use of the technique in improving the students’ writing, listening, and reading skills. To the researcher’s knowledge, no previous studies had used the technique to boost students’ dissertation writing.

### **3. Methodology**

#### **3.1. Participants**

The study includes 39 first-year Master EFL students at Saida University. The researcher conducted the study during the academic year 2019-2020. Students received lectures on how to write dissertations, mainly the abstract and general introduction. These students are expected to graduate in 2021; for this reason, the teacher aimed to improve their thinking skills as far as dissertation writing is concerned. The researcher followed non-random selection, i.e., all students have the right to participate in the experiment. The group contains students from both genders. All the students conducted a pretest and posttest.

### 3.2. Materials and Research Procedures

The researcher chose to use tests for the experiment rather than questionnaires and interviews. The main aim is to give more value to the practice. Through tests, the researcher can check, follow, and assess the students' use of the technique and its outcomes.

During the first semester, the researcher trained students on how to write the academic abstract and general introduction. The researcher employed other means to reinforce the students' knowledge, mainly social media (Facebook and YouTube). She also posted lectures on Moodle with extra materials, mainly books. The main aim is to reinforce their background knowledge. The lectures are supported by assignments and homework activities. After finishing the first-semester program, students conducted a pretest on the two selected features (abstract and general introduction).

During the second semester, students were introduced to the *Six Thinking Hats approach* and its effectiveness in promoting students' thinking skills and improving their writing skills. They became familiar with the technique and its use. As far as the use of colors is concerned, students selected the following colors for abstract writing, mainly in writing the informative type as figure one shows. They did not respect the colors used in the approach but they started to learn how to engage critically in the process.

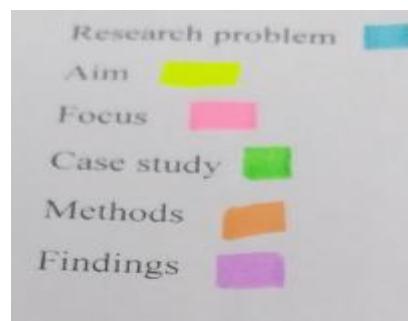


Figure 1. Key colors to define basic features of an informative abstract

Figure one indicates the six colors used by students to highlight the basic features of an informative abstract. The students agreed on the above colors to the exclusion of white and black colors. The same colors were used to determine the basic features of the general introduction. The researcher included all samples under the students' permission. The following figure provides an overview of how students used these colors to organize the basic features of the abstract:

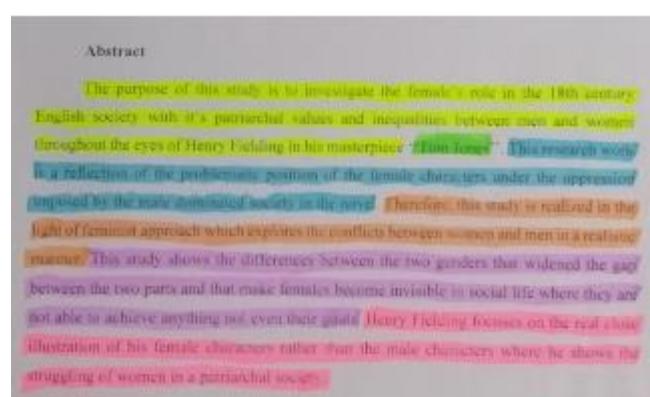


Figure 2. Students' use of colors to highlight the features of the informative abstract

Figure two reveals students' level in recognizing the basic features of an informative abstract. The experiment proves the effectiveness of the technique in learning and using the basic features of an informative abstract. Figure three also shows students' use of the key colors to organize the general introduction:

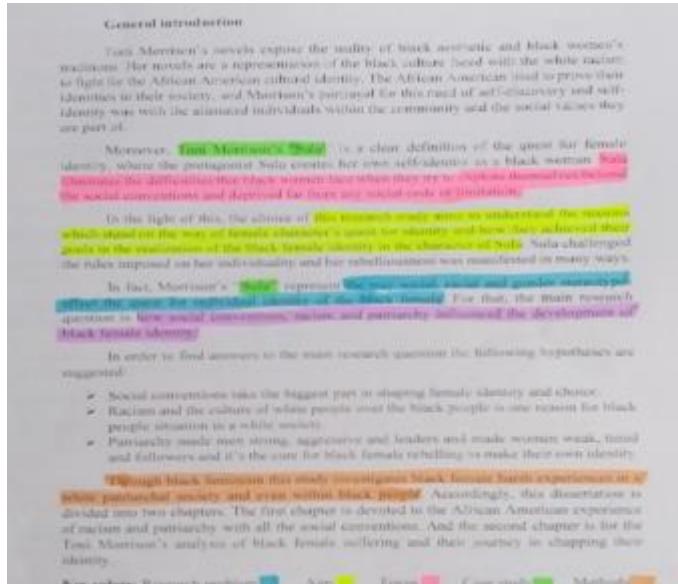


Figure 3. The use of key colors to highlight the basic features of the general introduction

Figure three reveals that students mastered the use of the STH technique and started using it in their homework and classroom assignments.

#### 4. Findings

##### 4.1.Pretest

The researcher conducted a pretest with the 39 students during the first semester as has already been mentioned. Through the pretest, the researcher asked students to write an informative abstract and a general introduction. Every student selected a topic in the fields of literature and civilization. Most students chose the topic "The Quest for Female Identity in Morrison's *Sula*" for the pretest and posttest. The teacher asked students to write an informative abstract and the first part of the general introduction. Table one reveals students' level of recognition:

Table 1. Level of students' recognition of the basic features of the abstract

Abstract basic features	Percentage of students' recognition
Main aim	58.31%
Significance of the study	19%
Focus	05.33%
Context of the study	33%
Research tools	02.66%
Findings	40.71%

Table one indicates that most students had a low level of recognizing the basic elements of an informative abstract. They tend to include just the main aim, the context of the study, and findings. A small minority has an acceptable background in recognizing the significance of the study and research tools.

Table 2. Level of students' recognition of the basic features of the general conclusion

General introduction basic features	Percentage of students' recognition
The research problem	42.03%
The focus	11%
The main aim	36%
The research objectives	77.31%
The research questions	89%
Research tools and context	22.33%

Table two shows that students' level of recognition is high in some features like the research problem, the research objectives, and research questions. It is low in recognizing the focus, the research tools, the context of the study, and the main aim. The main reason is that students learned through their license level how to identify the research problem, how to write the research questions and research objectives. It is until their Master's level that they start learning how to write the general introduction.

#### 4.2.Posttest

After students were introduced to *Six Thinking Hats* as a technique, they started practicing some activities by highlighting the basic features of abstract and general introduction writing through some samples posted by the teacher on Moodle and Facebook. The following figure presents a sample of the abstracts checked and highlighted by students during the experiment:

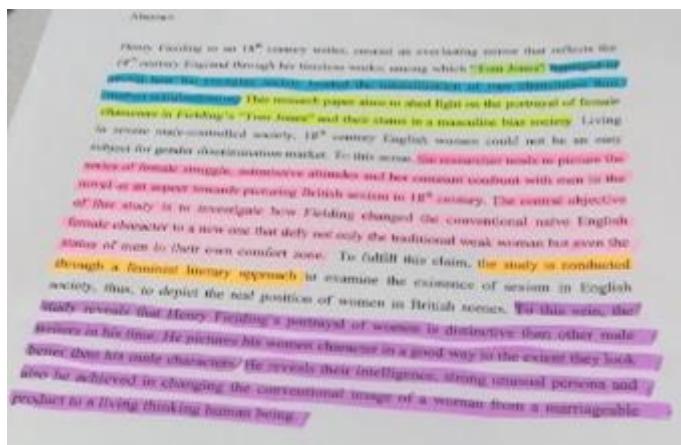


Figure 4. A sample of activities checked and highlighted by students

Figure four reveals that students conducted some activities posted by the teacher during sessions of practice before they started writing their abstracts and general introductions. The figure shows that students succeeded in using the technique on one hand and mastering the basic features of abstract and general introduction writing. The second step of the experiment was that students started writing their abstracts and general introductions. After that, their works were distributed anonymously. They began highlighting the basic features and writing comments for their classmates. After that, the teacher distributed the papers to the students. They started correcting and improving their abstracts and general introductions. They highlighted again using the key colors and waited for the teacher's feedback. The following figure represents a sample of the corrected abstracts after group work:

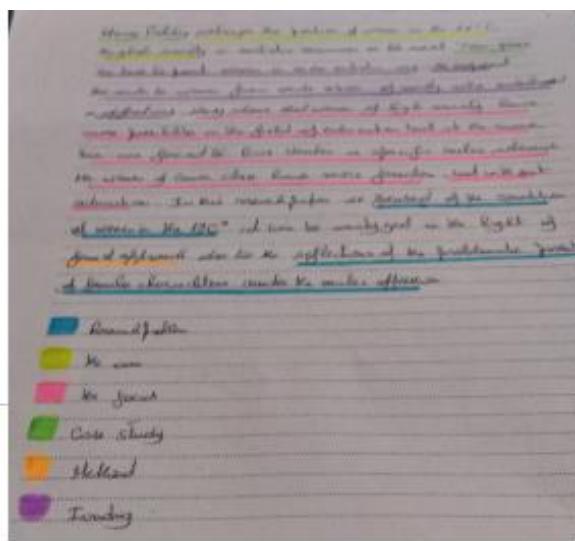


Figure 5. Sample of students' abstracts after group work

Results in the following table reveal a significant difference between the students' level in writing abstracts, mainly the informative type and the general introduction. Students started recognizing what is missing in these parts and have developed good background knowledge about the importance of using thinking skills in improving their academic writing, mainly dissertation writing. Students followed the same steps in writing the literature review, the findings, and the discussion sections.

Table 3. Students' level of recognition after the experiment

General introduction and abstract basic features	Percentage of students' recognition
The research problem	86%
The focus	77.33%
The main aim	65.03%
The research objectives	91%
The research questions	96%
Research tools and context	81.16%
A sum of the main findings	88%

Table three indicates that most students have recognized the importance of the basic features of the abstract and general introduction. They learned that identifying the research problem in the general introduction is of vital importance. They also learned the main difference between the aim and the focus and where they can place them. They also learned that including a sum of the main findings in the abstract section is important, mainly when they are writing the informative type.

## 5. Discussion

The results revealed that students succeeded in using De Bono's approach to *The Six Thinking Hats* in dissertation writing, mainly in writing the abstract and the general introduction. Students started to think critically by recognizing the basic features that build these parts and how they can place them. Students also recognized the chronological order of these features and how they are interrelated; hence, they came to the point that academic writing is not done randomly. It is guided by some thinking rules. This may confirm the researcher's main objective about the importance of developing both students' thinking and writing skills at the same time by providing an appropriate learning atmosphere in class.

The results also showed that the teacher's feedback through group work is also important in enhancing the students' thinking skills. It can also develop students' self-oriented learning by getting feedback from their classmates. The results also demonstrated that to develop the student's self-oriented learning, the teacher should improve his thinking skills. Therefore, they can be independent learners. The analysis also indicated that to develop students' academic writing performance, teachers should select the appropriate techniques to boost the learners' thinking skills.

Group work raised students' motivation and awareness to correct their mistakes. The analysis revealed that De Beno's technique, which was employed to improve pupils' thinking skills and was also used in different fields to encourage workers, can also prove its effectiveness in developing EFL learners' thinking skills about their linguistic skills, mainly writing. Dissertation, writing which receives the least attention to improve students writing, can also use this technique to enhance the learners' background knowledge through motivating them to learn basic features in academic writing. This may answer the researcher's first question 'Did STH improve students' dissertation writing?"

The experiment revealed that continuous assessments help teachers to test their students' strengths and weaknesses. Through the pretest, the researcher recognized the low background of her students in using their thinking skills in academic writing in general and recognizing the basic features of the different parts of dissertation writing, mainly the abstract and general introduction. Through the posttest and the use of the STH technique, the researcher succeeded in raising her students' motivation, on one hand, developing their thinking skills, and therefore improving their writing skills. This may answer the second research question "How can students use STH to develop their thinking skills?"

## **6. Conclusion**

The main focus of the paper was to improve students' thinking skills and therefore their academic writing skills, mainly in dissertation writing by using De Bono's Six Thinking Hats. Although the students did not follow all the techniques found in the approach, they found it interesting to highlight important issues in dissertation writing using a set of key colors. The paper discussed how teachers of academic writing and research methodology can integrate thinking skills to improve students' dissertation writing. Six Thinking Hats, as a technique, proves its effectiveness in promoting group work, peer correction, and motivation, on one hand, and developing students thinking skills on another hand.

The findings revealed that the group scored better in the posttest after the use of the Six Thinking Hats. Students showed their competence and mastery in recognizing the different parts or elements of the abstract and general introduction. The results demonstrated that students scored better in writing the informative abstract as a type. They also learned how to identify the research problem, the focus, and the significance of the study. They learned to develop the research questions and objectives of the study.

The findings of the study are limited to a small number of Master's students at Saida University. The findings cannot be generalized to all EFL students. The study can be taken as a map road for future studies that intend to explore the use of the Six Thinking Hats in improving EFL students' thinking and writing skills, mainly creative thinking, and dissertation writing.

## 7. Recommendations

In the light of what precedes, the researcher suggested the following recommendations:

- More importance should be given to the field of academic writing in general and research methodology in particular in using thinking skills.
- The use of thinking skills should not be limited to developing speaking or writing skills.
- Teachers can be eclectic in their teaching methods.
- Teaching thinking skills should be a part of the curriculum from middle schools.
- Teachers should provide an appropriate atmosphere that favors the use of thinking skills techniques like De Bono's the Six Thinking Hats and Gardner's multiple intelligence, etc.
- Giving more importance to developing students' creativity through developing their divergent thinking skills.
- Teachers need to incorporate both thinking skills techniques, group work, problem-solving and self-directed learning in their students' activities.

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